Sargassum's Impact on Ocean Acidification

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This experiment focuses on the effect of sargassum on marine pH. By keeping sargassum in different treatments with varying initial pH, I measured pH, salinity, and ammonia over 19 days in six different treatments: 1) Control without buffer, 2) Similar to control with buffer, 3) Current oceanic pH, 4) Predicted ocean pH in 2100 with no change in carbon emissions, and 5) Predicted ocean pH in 2100 with worst-case carbon emissions (repeated once), and 6) Predicted ocean pH in 2100 with worst-case carbon emissions without algae (repeated once). Shapiro-Wilk tests were run to determine if the pH were normally distributed across all treatments. Then a Kruskal-Wallis analysis determining the impact of sargassum on pH, and a Tukey HSD analysis were performed to determine the differences among treatments. Sargassum plays a role in the carbon cycle, which could be investigated further as a way to counteract ocean acidification, but unknown factors could have played a role in raising the pH of several treatments.

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